

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (previously presented): A vehicle control method, comprising:
one of:

applying a first vibration to a tire in a running state to reduce a coefficient of friction in a longitudinal direction of the tire, between the tire and the surface of a road, and so as to increase a coefficient of friction in a width direction of the tire between the tire and the road, wherein the vibration is applied in a revolution direction of the tire, and

applying a second vibration to the tire in the running state to reduce the coefficient of friction in the width direction of the tire between the tire and the road and so as to increase the coefficient of friction in the longitudinal direction of the tire between the tire and the road, wherein the second vibration is applied in the width direction of the tire,

thereby controlling the running state of the vehicle,

wherein the first and second vibrations are micro-vibrations having a higher frequency than a response frequency of change in a behavior of the vehicle.

2. (canceled).

3. (previously presented): The vehicle control method according to claim 1, wherein in addition in the revolution direction or to the width direction of the tire, the vibration is also applied in a load support direction of the tire.

4. (previously presented): The vehicle control method according to claim 1, wherein an amplitude of the vibration is modulated to a range of 1 to 2,000 % of the depth of a tread of the tire or the thickness of a top tread of rubber of the tire.

5. (previously presented): The vehicle control method according to claim 1, wherein a frequency of the vibration is modulated to a range of 1 Hz to 1 kHz.

6. (previously presented): The vehicle control method according to claim 1, wherein a frequency of the vibration is modulated to a range of 20 Hz to 1 kHz.

7. (previously presented): The vehicle control method according to claim 1, wherein at least one of an amplitude, a frequency and a phase of the vibration to be applied to the tire in the revolution direction of the tire, is controlled to minimize a rolling resistance of the tire caused by friction between the tire and the surface of a road at the time of running.

Claims 8-10 (canceled).

11. (previously presented): The vehicle control method according to claim 3, wherein at least one of an amplitude, a frequency and a phase of the vibration to be applied to the tire in the revolution direction of the tire, is controlled to minimize a rolling resistance of the tire caused by friction between the tire and the surface of a road at the time of running.

12. (previously presented): The vehicle control method according to claim 4, wherein at least one of the amplitude, a frequency and a phase of the vibration to be applied to the tire in the revolution direction of the tire, is controlled to minimize a rolling resistance of the tire caused by friction between the tire and the surface of a road at the time of running.

13. (previously presented): The vehicle control method according to claim 5, wherein at least one of an amplitude, the frequency and a phase of the vibration to be applied to the tire in the revolution direction of the tire, is controlled to minimize a rolling resistance of the tire caused by friction between the tire and the surface of a road at the time of running.

14. (previously presented): The vehicle control method according to claim 6, wherein at least one of an amplitude, the frequency and a phase of the vibration to be applied to the tire in the revolution direction of the tire, is controlled to minimize a rolling resistance of the tire caused by friction between the tire and the surface of a road at the time of running.

15. (previously presented): The vehicle control method according to claim 3, wherein at least one of an amplitude, a frequency and a phase of the vibration to be applied to the tire in the load support direction of the tire, is controlled to minimize a rolling resistance of the tire caused by friction between the tire and the surface of a road at the time of running.

16. (currently amended): The vehicle control method according to claim 4, further comprising applying a third vibration in a load support direction, wherein at least one of the amplitude, a frequency and a phase of the third vibration to be applied to the tire in the load support direction of the tire, is controlled to minimize a rolling resistance of the tire caused by friction between the tire and the surface of a road at the time of running.

17. (currently amended): The vehicle control method according to claim 5, further comprising applying a third vibration in a load support direction, wherein at least one of an amplitude, the frequency and a phase of the third vibration to be applied to the tire in the load support direction of the tire, is controlled to minimize a rolling resistance of the tire caused by friction between the tire and the surface of a road at the time of running.

18. (currently amended): The vehicle control method according to claim 6, further comprising applying a third vibration in a load support direction, wherein at least one of an amplitude, the frequency and a phase of the third vibration to be applied to the tire in the load support direction of the tire, is controlled to minimize a rolling resistance of the tire caused by friction between the tire and the surface of a road at the time of running.